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COMMUNICATIONS.

Penetrating Fistula of the Thorax, of eighteen months' standing, the result of Traumatic Injury, successfully treated; with Remarks on Wounds of the Pleural Cavity.

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The history of the following case, and its unexpectedly successful termination, will, we hope, not be uninteresting, especially at a time like the present, when the threatening conflict of armies, near our homes, arrayed against each other, may offer analogous injuries to the military surgeon for treatment. Convinced, as we are, by observation, reflection, and experience, that the common practice of treating penetrating wounds of the great cavities of the human body by *timely and careful closure* is often *erroneous*, the fortunate issue of the present case and others should, at least, invite inquiry into a practice to be detailed in these pages, which, though not considered legitimate by authors, will, we are sure, if generally adopted, be the means of saving many, and of preventing dire consequences in others, whose wounds should happen to be of the penetrating character.

John O'Neal, thirty-two years of age, steamboat mate, with fair skin and light hair, of scrofulous constitution, had generally enjoyed good health in active duty. A year and a half ago, during a difficulty with some of the hands of the boat, he received a stab with a broad-bladed knife into the left side of the chest, between the eighth and ninth ribs under the left arm, inflicting a wound of *an inch and a half* in length, the knife having entered the pleural cavity. Profuse arterial bleeding immediately followed, which was soon arrested by the closure of the wound by sutures. Dispnœa, high inflammatory fever, cough, and bloody sputa soon set in, and empyema was the consequence. Nine days after, an abscess pointed below and in front of the original wound, already cicatrized, which was opened by his physician, discharging a large quantity of very offensive matter. A month later, the first wound opened spontaneously, giving vent to bloody pus. After a confinement of eight weeks, he improved somewhat, and was able to be about, both fistulæ discharging profusely. This respite was soon followed by frequent chills, with fever, night-sweats, dyspnœa, wasting of the muscles, loss of strength and of appetite, indicating too plainly the severe irritation under which his system was laboring. Continuing in this condition for some months, the fistulæ slowly and gradually closed, with evident improvement of his health. But this relief was only of short duration, for more harassing dyspnœa, pleuritic pains, and hectic fever reappeared, the original wound again opened, discharging a still larger quantity than it had done before, of greenish and highly-offensive matter. Discouraged by the fruitless though kind efforts of several of his medical advisers, his strength and means exhausted, and dispairing of recovery, he returned from the South to his home, near this city, and was soon after admitted into my hospital.

The appearance of the patient, being stoop-shouldered, pale and sallow, greatly emaciated, with short, quick, and painful respiration, a rapid and feeble pulse, frequent and protracted chills, during which his face assumed a purplish hue, irregular paroxysms of fever, oppression, and night sweats, with clammy, cold hands and feet, a short hectic cough, and sputa purulenta, with loss of strength and appetite, occasional diarrhœa, œdema of the ankles, and disturbed rest at night, was not calculated to inspire any hope of relief, pulmonary phthisis being but too readily suspected. On inspecting his chest, the left side was found motionless

during respiration, and was sunk in in front, below the axilla and under the clavicle, measuring one inch less than the opposite side. Auscultation elicited a feeble respiratory murmur in front, being entirely absent posteriorly and under the left arm. Percussion gave a decidedly dull sound over the whole left side of the chest. There was a fistulous opening under the arm, rather posterior to it, between the eighth and ninth ribs, surrounded by a papilla of fungous granulations, through which a probe entered readily, passing down and forward to the extent of five, up and backward to more than seven, diagonally inward to near four inches. On deep and prolonged inspiration the matter would squirt out of the fistula in a fine stream, with momentary relief to the oppression of breathing. The quantity of matter, of yellow greenish color, and highly-offensive odor, thus daily discharged, averaged more than a pint. In addition, there was a fistula on the left side of the anus, one inch from the orifice, communicating with an internal opening above the sphincter, which had opened spontaneously somemonths ago, the consequence of a perineal abscess.

Reviewing the history of the case and its symptoms, constituting traumatic empyema, the indications of treatment were plain. A generous diet was ordered, the chest daily syringed through the fistula with warm water, to which tinct. iodi., acid. tannic., and other astringents were added. Free and deep respiration was practiced with the view of expanding the compressed air-cells of the lung, so that pleura costalis and pulmonalis may meet and, eventually, adhere to each other. This treatment, however, though continued for several weeks, failed to afford relief, and we were led to conclude that retention of *coagulated blood* from a wounded intercostal artery or a *carious condition* of the ribs was the cause of the protracted suppuration. With this view, on December 8, 1857, in the presence of Drs. Lusk, M'Grath, and others, chloroform being administered, a crucial incision, of several inches in length, was made over the fistula down to the ribs, the flaps resected, and an inch and a half of the eighth rib excised with plyers; the intercostal space, between it and the ninth rib, being entirely effaced, and the rib itself being greatly hypertrophied. This opening being made, more than a pint of highly-offensive matter was forced out of the chest, and with it a purplish mass, closely resembling putrified lung, was removed by forceps, the quantity of which would have filled a moderately-sized tumbler. The smell which this coagulum (being the coagulated fibrin of the effused blood so long retained) emitted, was unusually offensive. Its retention, no doubt, had been the cause of continued irritation to the pleura, with protracted suppuration as the consequence. The chest, having been washed out with warm water, was now explored with the finger, without being able to reach the extent of the cavity. The lung was found collapsed by the pressure of the retained blood. Little blood was lost during the operation, but exhaustion following, as the after effect of chloroform, stimulants had to be resorted to. Reaction was slight and relief very marked, respiration more free and less frequent. The wound was kept open by pledgets of lint, removed several times a day for the evacuation of matter; the pleuritic cavity was daily syringed. Opiates and a supporting diet constituted the after treatment. The daily practice of deep and prolonged inspirations was kept up for some months and, improvement continuing, hectic disappeared; appetite and strength returned; respiration became still deeper and free of oppression. The left side of the thorax had sunk in more in front and laterally, and the discharge of pus, now more healthy, had greatly diminished. Still the probe entered the cavity of the pleura too freely, though less in front than behind. Iodine injections were again resumed, but had to be discontinued, as they produced chills and irritative fever. The condition of the patient remaining stationary now for some time, a change for the worse again took place, without manifest cause. Fever, night sweats, diarrhœa, an increased discharge of a more offensive nature reappeared, while the opening in the thorax was, with difficulty, kept from closing. The cavity of the pleura had evidently lessened in size, still there was a cause of the continuance of the discharges, which could not be removed, as the result proved, but by a more direct and free exploration of its interior.

With this view, on February 11, 1858, a more free opening in the chest was made by resection of two inches and a half of the eighth and ninth ribs by the chain saw, chloroform again having been resorted to. The abscess being thus fully exposed, a thick, dirty, pale-gray, pulpy pyogenic membrane was found lining its interior, which, being devoid of plastic organization, was the continued source of irritation

and suppuration, and a barrier to adhesive inflammation, setting in between the pleural surfaces for their ultimate consolidation. The diaphragm was seen as well as the pericardium and the pulsations of the heart, the lung being found pushed backward four inches toward the mediastinum, and was seen to rise on deep inflation. This pyogenic membrane, in its whole extent, from the diaphragm to below the scapula, was now carefully removed by the fingers and bent spatula; the size of the cavity thus exposed being such that a child's head of a year old could have been contained in it. The pleura was found thickened and the ribs greatly hypertrophied. Not much bleeding followed. The wound was covered with lint and warm water dressings, and anodynes were given at night. Reaction was moderate. Daily syringing the chest with infusion of chamomile, rest upon the affected side to facilitate the discharge, forced and prolonged inspiration by an inhaling tube, and a supporting diet, constituted the after-treatment. The discharge gradually decreased, became better in quality, cough and hectic disappeared again, strength and appetite returned, the muscles grew firmer, and sleep was sounder than it had been before. Still this decided improvement was again some weeks later interrupted by the accession of fever, night sweats, and offensive and increased discharge, for which no other cause could be assigned but the thickened and diseased condition of the pleura, being liable to have the quality and quantity of its secretions changed on slight interruptions of the standard of health. With the view, therefore, of restoring it to a healthy state, and to induce it to assume the adhesive inflammation, so indispensable for obliterating the pleuritic cavity, injections of sulph. of zinc were used, (the patient inclining his head downward in order that the injection may reach the apex of the abscess.) The opening gradually closing, tinct. of iodine was applied with a sponge fastened upon a whalebone to the interior of the abscess, when the discharge diminished, the left side having sunk in still more. Four months after the second operation, the fistula having cicatrized, the patient appeared restored to health. But, a few weeks later, fever again set in, with pain in the chest, vomiturition, diarrhœa, and purplish spots of the cheeks and lips, which were relieved by the fistula opening spontaneously, and discharging freely thick, flaky, and bloody matter. On the finger being introduced into the chest, the cavity of the abscess was found greatly diminished, its space being three-quarters of an inch in a horizontal direction, one inch downward toward the diaphragm, but several inches upward toward the scapula. The pleura was found coated again with a pseudo-plastic membrane. The interior of the abscess was daily touched again by a small sponge moistened with tinct. of iodine, bringing away flakes of detached fungous membrane. The quantity of matter decreasing, and the fistula obstinately contracting, some months later the same train of symptoms appeared as formerly. Tinct. of iodine was now injected and allowed to remain; afterward a weak solution of kali caustic, which had the effect of freely detaching flakes of the pyogenic membrane. These eventually ceasing to pass, chamomile injections were used alternately with the syringing of tinct. iodi composita. The abscess now gradually contracted upon itself, both pleuræ evidently meeting each other, there being now hardly any space between their surfaces, the probe entering with difficulty only in an upward and backward direction. The fistula, too, gradually contracted, but was kept open by the daily introduction of a bougie, when only a few drops of thin glairy fluid were forced out by deep inspiration. The injections were now discontinued, but the fistula was opened daily; then every other and third day, till all discharge ceased, when it was allowed to close about the beginning of January, 1859. Six weeks later, the anal fistula was treated by ligature and closed; a small piece of bone (one-eighth of an inch in diameter, and very sharp,) having been found in its track, which must be considered the origin of the abscess and fistula. The patient appeared restored to health; the respiratory murmur had returned in the left lung; he had become fleshy, all the organs acting in a normal manner. The left chest measured an inch and a half less than the right one across the nipples, but dilated freely under forced inspiration. A leather belt encircling the thorax was procured and advised to be worn in order to give that support which was required on account of the loss of part of the ribs. Three months longer he remained an inmate of the hospital, in order to test his permanent recovery, and left it in the latter part of April, 1859, in perfect health and spirits, and soon after resumed his duties as mate on the river. I hear from him frequently, and he is in excellent health.

The history of this case and its successful termination, being of more than ordinary interest, I need not, I trust, apologize for its lengthened report, the more so as the *immediate* treatment of the wound, though in accordance with the teachings of books and sanctioned by the profession in general, has been followed by consequences which have come near proving fatal. O'Neal was stabbed into the left pleural cavity; the arteria intercostalis was wounded; hemorrhage took place with prostration. The wound was closed as soon as possible by suture and cicatrized, and pleuro-pneumonia, with oppression, set in, followed by empyema. An abscess pointed and was punctured, the original wound, too, opening again, and a profuse offensive discharge continued, for many months, debilitating the patient, and imprinting on him the features of a confirmed consumptive. A variety of constitutional treatment was instituted without any relief. The resources of the physician being exhausted, surgery is appealed to, and through it the patient, after a lapse of nearly three years, is saved, whom correct surgery, if timely applied, would have spared the dire consequences through which he had subsequently passed, there being a fistulous opening communicating with the left pleura, from which an abundant offensive discharge had been flowing for several months. By the exploration with the probe, a large cavity in the pleura is found, the probe entering obliquely down five, inward four, and upward toward the scapula more than seven inches. The left lung having receded upon itself with entire absence of respiratory murmur, a carious condition of the ribs, or the presence of empyema, the mere effect of pleuritis could not have kept up the collapse of the lung, and it was justly inferred that *coagulated blood*, retained and putrified, and thus acting as a foreign body, was the cause of the continued patency of the chest and the continued discharge. The coagulated blood could not be removed through the fistulous opening without previous enlargement; resection, therefore, of part of one rib, was resorted to with evident success. The blood was thus evacuated, and irritation of the system ceased. Still, improvement was only temporary, as the pleura having, from constant irritation, become thickened and covered with a fungous membrane, continued to secrete matter which injections of a stimulating and astringent nature failed to check. A second and more free resection was then made, some thickened blood and the pseudoplastic membrane, lining the empyematous cavity, were removed, when, under the use of syringing and stimulating applications, assisted by forced and prolonged daily inspirations, the collapsed lung expanded again, and both pleuræ having reassumed their natural condition, were ready to adhere, thus obliterating the cavity and restoring the patient to health.

These being the facts, there cannot be any doubt that the time-honored rule of practice in penetrating wounds of the thorax, viz: the *timely and careful closure of the wound* after the bleeding vessel has been secured, for fear that collapse of the lung would follow the entrance of air into the pleural sac, is *totally wrong* and ought to be discarded. It is *not* true, that atmospheric air—a medium which is constantly surrounding us, and without which our existence must cease—when entering the pleural cavity will *necessarily* produce collapse of the lung and phlogosis, with its results. Why should its contact with the pleura be more injurious after accidents than with the other serous tunics lining the great cavities and their organs? We puncture the abdominal cavity with impunity, enlarge abdominal openings with protrusion of the intestines, without apprehension of danger; we puncture even the pleura in hydrothorax and empyema, and do not fear a bad result; and yet we are taught to believe that air, entering the chest from wounds inflicted in a healthy state of the system by accidents, and not made for surgical purposes, is extremely hazardous.

Denying the deleterious effects of the contact of air with the pleura, it is yet very doubtful if air, in such a quantity as to cause compression of the lung, can enter an incised wound, considering that the several tissues, (skin, cellular tissue, aponeurosis, muscles, and pleura,) when traversed by the instrument, are of different degrees of elasticity and density, that the fibres of the two sets of intercostal muscles run in opposite directions, and that the internal and external openings are seldom found exactly opposite to each other. Moreover, after the infliction of penetrating wounds, the patient generally becomes feeble and faint, the respiratory efforts, checked, too, by pain, grow consequently weaker, the thorax expanding less, and the intercostal spaces collapsing. Under these circumstances, atmospheric air cannot enter by a small and oblique opening; but if large and capable of admitting a free current of it, with

consequent oppression to the lung, the instinctive efforts of nature to relieve the lung of the compressing agent would be called into action by deep inspirations, and the air thus entered would be expelled again through the wound. Therefore it is *not the entrance of air* in penetrating wounds of the thorax which constitutes the danger, but hemorrhage, with its effects and consequent inflammation of the thoracic viscera with its results. Though bleeding from a wounded arteria intercostalis may have, either spontaneously or by pressure and ligature, been arrested, yet it cannot be safe to close the wound immediately after, as already effused blood in the pleural cavity has to be removed. Admitting that small quantities, when extravasated, will be absorbed, it cannot be denied that a large quantity, when filling the sac and forcing the lung upon itself, will remain unabsorbed, and thus act as a foreign body, inducing empyema, with grave constitutional irritation.

The correctness of the above conclusions being fully borne out by the result of this case and similar others, we are constrained to adopt, as the *only proper and safe practice* in the management of wounds of the thorax suspected to be penetrating, the following rules:

The *first* duty of the surgeon must be to ascertain, by gentle probing, if the wound be penetrating or not. This surely cannot augment the injury, being, moreover, demanded for the purpose of detecting, in the track of the wound, the presence of a foreign body—a broken knife, bullet, etc. Thus the depth of the wound and its direction being ascertained, the surgeon is put on his guard to expect internal bleeding. If this be present, the wound should be *left open*, the bleeding arrested by local and general means, and the outward flow of blood encouraged by inclining the body toward the wounded side. The propriety of even enlarging the wound, if it be small and inward bleeding excessive, cannot be questioned. But, if the effusion be moderate and the wound small, it may be left to itself; if large, however, and the effusion great, part of the aperture should be left open, the rest closed by sutures or plaster. The hazardous effects of secondary hemorrhage will thus be prevented by a free opening for the exit of the effused blood. Supporting the chest next by a bandage, in which an opening has been left opposite the wound, and by general and local antiphlogistic means the patient will then escape the danger which otherwise must follow an injury of such a grave nature.

Conclusively as the foregoing case has proved, the impropriety of *early* closing, penetrating, thoracic wounds, the following, taken from my notes, will give some additional weight.

James O'Leary, twenty-one years of age, was stabbed, in 1856, with a penknife in the posterior part of the left side of the thorax, below the scapula, the wound not exceeding in length three-quarters of an inch. Some bleeding following, he walked to the office of a physician of this city, who, closing the wound with emplast. adhesiv., dismissed the patient with the remark "that the injury would *not* amount to any thing." However, great oppression of breathing took place in the evening, and in eighteen hours O'Leary was a corpse. The post-mortem examination, held by the coroner, revealed profuse effusion of blood into the left pleura from a wound of the intercostal artery, with compression of the lung.

The assailant was tried for murder, convicted by strength of the testimony of O'L.'s attending physician, who, supported by another practitioner, declared that the wound was *mortal* in spite of proper (?) surgery instituted, alleging that the patient could not lose blood enough from the cutting of the intercostal artery; nor could the cavity of the pleura hold blood in sufficient quantity to cause death. The Governor, however, on application of the friends of the condemned, had him reprieved on the testimony of several surgeons, who, upholding the correctness of our conclusions, were frank to admit that the wound not being necessarily fatal, bad surgery and gross carelessness of management had produced the death of young O'Leary.

Mrs. Mary Zimmerman was stabbed (1845) by her husband with a shoemaker's knife into the left thorax, between the seventh and eighth ribs, under the shoulder-blade, the wound being two inches in length. Internal bleeding took place; orthopnea, with high fever, pleuroperipneumonia followed; relieved by death five days after the infliction of the injury. The wound had been immediately closed by a practitioner. Post-mortem examination revealed the point of the knife, an inch and a half long, sticking between the ribs, with profuse effusion of blood into the pleura from a wound of the intercostal artery. Can it be denied that neglect of probing the wound and its immediate closure was not the cause of the death of the old lady?

August Leusler, thirty years of age, was

stabbed (1858) with a broad-bladed knife between the fourth and fifth ribs, outside of the right nipple, inflicting a wound of two and a half inches in length. Profuse external and internal bleeding took place, the surface of the body became anæmic, and the pulse was flagging. A physician being called in had stitched the wound immediately. The respiration becoming oppressed with entire absence of respiratory murmur in the right chest, I was called in and removed the stitches, opened the wound, and, inclining the patient toward the right side, allowed the extravasated blood to ooze out with relief to the embarrassed respiration. Ice and position on the right side arrested the bleeding. Strong antiphlogistic treatment by venesection and repeated leeching moderated inflammatory action, removed the coagulated blood, and perfect recovery eventually followed. Considering the immediate relief which reopening of the wound, evacuation of some of the infiltrated blood under the position of the body upon the wounded side in this case produced, should the old practice of early closing the wound, for the purpose of shutting off the entrance of atmospheric air, be sanctioned any longer?

We need not adduce further proof of the success of a practice in opposition to one which, though old and venerated, must, nevertheless, yield to the test of scrutiny, observation, and experience; and we submit our remarks about the innocuousness of atmospheric air to the pluera, as well as to other serous menbranes, to the professional reader, fully convinced that pure air, one of the best of men's pabula vitæ, is not the enemy of the surgeon, but rather his friend and helpmate. Air does not compress the lung nor inflame it and the pleura when entering its cavity. It does no more injury to the pleura and the lung than it does when admitted into the interior of large abscesses when opened. It is true that large collections of matter, the consequence of deep-seated organic disease, when freely opened, will hasten the destruction of the patient, as in the case of psoas abscess and similar others. Still, even in these instances, it is not, we feel convinced, the admittance and admixture of air with the secretum of the pyogenic membrane, lining these cavities, which, by changing the quality of the matter and increasing its quantity, reduces the patient, as supposed, but it is the exposing the numerous secreting vessels of a large pyogenic surface by free incisions, and thus relieving them of the pressure of the super-incumbent pus to which they were subjected before evacuation of the abscess, which enables them to pour out their secretion unrestrained as soon as formed, being no longer checked by the pressure of the matter which partially closed their orifices before. Suppuration, then, once freely established, must become excessive in quantity and vitiated in quality, merely by reason of excess of action and not by admixture of air. This theory, which we assume to be rational, will be corroborated by the analogous condition of many ulcerations of the skin, lined with exuberant granulations, which will, at times, secrete unhealthy matter in abundant quantities, so long as their vessels are unrestrained by supporting dressings. But as soon as these unhealthy granulations are compressed by proper bandaging, partially closing the mouths of the secreting vessels, a healthy granulating surface is established, secreting benign pus in moderate quantity. The sore is then able and ready to cicatrize kindly. Air, therefore, does not, as we believe, vitiate the matter in large abscesses when opened, but *want of support to the lining-secreting membrane* of their interior allows the matter to degenerate and its quantity to become excessive. The patient thus sinks exhausted by the continuance of the profuse drain from the system, as much so as he would from a copious and protracted hemorrhage, though in the former case the

Fig. 1.

fatal result is often hastened by pyemia and its direful results.

Fig. 2.

The accompanying sketches represent the situation of the wound and the configuration of the chest after the operation, showing, also, the scars left after resection of the ribs.

Hints and Observations on Military Hygiene, relating to Diet, Dress, Exercise, Exposure, and the Best Means of Preventing and Curing Medical and Surgical Diseases in the Army.

By a Hospital Surgeon of Philadelphia.

(*Continued from page* 204.)

SECTION II.

Hospitals are divided into—1st, General, and, 2d, Flying. To the first are assigned a medical staff, distinct from that immediately attached to the line of the army. The second are those hospitals attached to the army during active operations. Of this class we shall say but little, as they are but make-shifts at best, depending upon many contingencies, on account of being easily removed. During the summer, from June until September, large tents of India-rubber or oil-cloth have been found the most convenient. In some cases large barns, as before spoken of, were found useful field hospitals. Surgeon Mann, U. S. A., says:

"The sick and wounded were as comfortably lodged as they would have been in a dwelling-house, and much less incommoded by the heat of the weather, which was very oppressive (1812) at times, during July and August. Through the spacious and lofty rooms, by means of large double doors on each side of the barn, a free circulation of air was admitted, which was not only grateful but salubrious."

The New French Ambulance, or Flying Hospital.—The word is derived from the French *ambuláre*, to walk. The following is a description of the ambulance which was employed by the French army in Algeria. It resembles a large-sized omnibus to be drawn by two or more horses, weighing twelve hundred pounds, but constructed that it can be detached into separate portions like an ordinary wardrobe. In the interior we have a row of beds, carrying six or eight men with great ease, but, when crowded, may be made to hold, as in our ordinary omnibus, twice or even three times the number. Each bed is a "field-stretcher," or portable cot, which, by means of the guard, takes the wounded man from the field and fits in its proper place in the ambulance, without any fatiguing change. By having these cots or beds to hold water, being of India-rubber, the patient with a fracture can be carried with great ease. If water cannot be obtained, it should be so arranged as to be blown up with air, and having rings attached so that a soldier's musket will fit into them, can be carried on the shoulders of the men.

Larrey, in his memoirs of his campaign in Poland, says:

"From Golominn, the Imperial Guard continued to advance on Pultusk. The roads became worse after we left that city. It continued to rain incessantly upon us, and we continued to march through a thick clay that came up to the girths of the horses, in which the artillery was every moment mired, and a great number of the baggage-wagons stuck fast. Our army never performed a more difficult and tedious march. Under these circumstances, the advantages of our small ambulance carriages were evident, as they were fixed on two wheels, and, from their height and lightness, traveled more easily than the carriages with four wheels, or even the bat-horses."

The four-wheeled ambulance is found best for flat countries, but the two wheels for irregular or mountainous countries. Larrey, who invented the first ambulance, during his campaign on the Rhine, 1789 and 1792, states that each division of ambulance consisted of twelve light carriages on springs. The large sized, with four wheels, resembled an elongated cube, curved on the

top, with two small windows on each side, a folding-door opened before and behind. The floor, like the present, was moveable, and on it was placed a hair matress and a bolster of the same, covered with leather, (a great improvement would be the substituting of air or water.) The floor moved easily on the two sides of the body, by means of four small rollers; on the sides were four iron handles, (rings that would fall or fit in the wood would be better,) through which the sashes of the soldiers were passed while pulling the wounded on the sliding floor, (as our soldiers do not wear sashes, the use of their musket as handles is, I think, better.) When the army was engaged in rugged mountains, it was found indispensably necessary to have mules or pack-horses with panniers to carry materials for dressings, with surgical instruments, etc. The trappings of a horse belonging to an officer of the medical staff, were a French saddle, with a cloth, similar in color to the uniform of the rider, edged with gold lace of various extent, according to the grade of the officer; instead of holsters for pistols, Larrey supplied them with couriers'-bags, which were more useful; they were covered with a holster-cap, edged with lace. A small leather portmanteau (or medical saddle-bag or trunk) was also fixed to the saddle. This contained dressings, and might easily be opened without loosing the straps which made it fast to the saddle. Such an arrangement would be well for our surgeons or their assistants.

Hospital Construction.—The best principle of hospital construction is that of separate pavilions, placed side by side, or in line. The former is preferable. It diminishes the distance to traverse from block to block. The distance between the blocks should be not less than double the height of the ward.

There should not be more than two flats to the block, or more than one ward to each flat. There is, however, no objection to having seventy to eighty sick under one roof. For the sake of economy, it might be necessary to build each pavilion with three flats instead of two, although two flats are more convenient for administration. For the purposes of administration, the building ought to be in a square; the basement story connected all round by an arched corridor, with open terrace above. The whole hospital should be erected upon an arched basement.

A hospital, formed of separate pavilions, could be built in line, provided large, roomy, well-ventilated, and well-lighted staircases intervened between each two pavilions.

This is the plan of the new military hospital at Vincennes, which, however, forms three sides of a square. This hospital has only one kitchen. That not more than one hundred patients can, with safety and facility of administration, be massed under one roof, has come to be an acknowledged principle of hospital construction. Buildings of two flats are most compatible with perfect sanitary condition.

Of the Number of Sick which a Ward should contain for Health, Discipline, and Administration.—The best size of wards for ensuring the two conditions of health and facility of discipline, is for the accommodation of from twenty to thirty-two sick.

Wards containing fewer than twenty beds both multiply the attendance unnecessarily, and interfere with proper ventilation, in proportion to the number of patients. Wards larger than thirty-two beds are undesirable, because they are more difficult and expensive to ventilate.

It has been proven by experience that the presence of head-nurses, whether male or female, one to each ward, is essential to discipline. It is very desirable, for purposes of discipline, that men of the same regiment should not be placed together in the same small wards or general hospital.

It may be asked, Why should not all the sick be placed in one ward, provided there be cubic space enough? The answer is, With from twenty to thirty-two sick a height of fifteen to seventeen feet is enough, but it would not be enough for more, and height always involves expense. The greatest economy and the greatest safety to patients is in the above number.

The Amount of Cubic Space for each Bed.—The cubic space for each patient in this climate has been fixed by European sanitary science at not less than fifteen hundred feet.

A good proportion for a ward of twenty patients would be eighty feet long, twenty-five feet wide, and sixteen feet high. This would give sixteen hundred cubic feet to each bed. It would give thirteen feet between foot and foot, which is not too much where there is a clinical school. It would give an average of sixteen feet to each two beds in width.

Half of the sick are to be on each side of the ward.

The Best Proportion of Windows to Beds, with the Relative Position of Windows and Beds.—One window should be allowed for every two beds; the windows to be not less than four feet eight inches wide, within two or three feet of the floor, so that the patient can see out, and should reach to the ceiling. The pair of beds between the windows to be not less than three feet apart. Miasma, with good ventilation, will not be found to extend much beyond three feet from the patient, although from the excretions, it may extend a greater distance. Windows are to be placed opposite each other. Wire-gauze across the open part of the window will afford an extent of surface for ventilation not otherwise to be obtained, and preclude all possibility of draught upon the patient.

Windows opening as at Middlesex and Guy's Hospitals, in London, in three or more sections, with an iron casting outside, to prevent delirious patients from throwing themselves out, are the best form of window.

No part of the ward ought to be dark. For the purpose of ensuring a sufficiency of light, the walls should always be white, excepting, perhaps, for some few cases of ophthalmia.

The Best Material for the Internal Walls and Ceilings of Wards.—Impervious wards are of the first importance for hospitals. The walls should be of *Parian* or *other similar cement*, or *glazed tiles*. Bricks, as used at the Portsmouth Hospital, is highly objectionable from its porous character. Plaster is objectionable from the same circumstance; it absorbs organic matter. Both require very frequent lime-washing to keep them healthy. *Glazed* bricks would answer a good purpose.

The Best Material for the Flooring of Wards.—Oak wood, well seasoned, is the best; no sawdust, or other organic matter, capable of rotting, should be placed underneath the floor.

Concrete, or some similar indestructible substance, would be the best for the purpose.

The reason for using oakwood is that it is capable of absorbing but a very small quantity of water. And it is very desirable to diminish even that capability, by saturating it with beeswax and turpentine. Beeswax is an invaluable substance. This kind of floor should be cleaned like the French parquet, by frottage.

A hospital floor should never be scoured. A very good hospital-floor is that used at Berlin, which is oiled, laquered, and polished, so as to resemble French polish. It is wet-rubbed and dry-rubbed every morning, which removes the dust. Its only objection is its want of durability.

The stairs and landings should be of stone or marble. The corridors should be floored with diamoned-shaped flags or tiles, which are more durable than those laid in the usual manner.

The terrace might be either covered with asphalte or glazed tiles.

The Accommodation for Nurses—Extra Diet and Clean Linen.—There should be a nurse's room, and a small scullery attached to each ward, also a press in the ward. Baths should be attached to the hospital. The baths should be separated from the pavilion, but connected by the corridor. The walls and ceilings of the bath-rooms should be of fine white cement, or some similar material, and the floors of tile. They should be suitably ventilated and warmed. They should contain hot and cold water baths, sulphurous water, hot air, medicated and vapor baths, shower-baths, and douche. There should also be a portable bath to each ward.

The Best Form of Hospital Kitchen.—The kitchen should be placed away from the ward. Its walls and ceilings should be of pure white cement, for plaster has a tendency to fall off, from the vapor and effluvia of the kitchen. The cooking apparatus, boilers, etc., if placed in the centre of the kitchen, instead of against the walls, will afford twice the amount of fire space.

The Best Form of Laundry for a Hospital.—No reliable comparison has yet been made between the French system, adopted at the Salpétrière and Lariboisière Hospitals, and the English system. The French consists in filtering hot ley through the clothes, which are placed for that purpose in large tubs, with a compartment at the bottom, from which the ley is pumped up by machinery, and allowed to flow over the top of the linen, through which it filters into the compartment, to be again raised by the machine. This plan is stated to be the most economical which has been tried in Paris.

There are several good plans in use in the British hospitals. The essential characteristic of the Haslar Naval Hospital laundry is boiling by steam, the linen being afterwards placed in a rotary washing machine.

Another method in use at the Wellington Barracks, where the washing of the Guards barracks and hospital is done, consists in passing the linen through slowly-rotating washing tubs, in which it undergoes a process of *walking* by wooden rods. This plan is both economical and effectual. It is a further question in army matters whether the men should not be trained to do as much as possible by hand, so as to be serviceable in the field where machines cannot be had.

The Best Kind of Bedstead and Bedding.—Iron bedsteads and hair matresses.

Ward Furniture.—Oak furniture is decidedly the best. The less ward furniture, generally speaking, the better. For all purposes of eating, drinking, and washing, glass or earthenware are to be preferred. Tin vessels of certain kinds cannot, by any amount of cleaning, be freed from smell.

Water Supply and Drainage.—The water should either be drawn from a tank, at a distance from the hospital, or from a main under pressure, but never from a cistern within the hospital. *No drain should ever pass under a hospital.*

The Best Position for the Water-closets.—The water-closets should be placed at the end of the ward opposite the entrance, and separated by a lighted and ventilated lobby. They should be of the best construction, self-acting. Adjoining should be a small bath-room for bad cases and lavatory.

The Best System of Ventilation for a Hospital.—The doors, windows, and fire-places should be the means of ventilation for such ward as these; nothing else is wanted.

The Best System of Warming for a Hospital.—Radiation; open fire-places. Heated air from metal surfaces should never be used for warming. It has a tendency to produce disease of the lungs.*

To what extent and in what manner can Female Nursing be rendered available in General Hospitals attached to an Army in the Field or at Home?—Florence Nightingale informs us that female nursing might be introduced in general hospitals, both at home and in the field, if only women of the efficiency, responsibility, and character of head nurses in civil hospitals be appointed. Say one to not less than twenty-five bad cases; the orderlies doing under the head female nurse the duty done in civil hospitals by assistant-nurses. But the head female nurse must be in charge of all that pertains to the bedside of the patient, of his cleanliness, of his bed and utensils, of the administration of medicine, of food, of the minor dressing not performed by the surgeon; in short, of all that concerns the personal obedience of the patient to the orders of the surgeon. She must accompany the surgeon on his visits and receive his orders. She must also be in charge of the ventilation and warming of the ward. She must report any disobedience of the orderlies, as far as regards the patient's personal treatment. There need be no clashing with the ward-master or hospital-sergeant. On the contrary, it would be the duty of these to enforce the nurses' authority. They will have enough to do, besides, with returns and accounts, and with enforcing discipline as to hours, meals, clothing, etc., among the orderlies out of the ward.

The female nurses should be, of course, under a female head, whose duties must be carefully arranged, so as to be in accordance with the code of hospital regulations.

Miss N. is of the opinion, from careful study and investigation, that female nursing could not be employed with advantage in regimental hospitals.

* Evidence given before the Royal Commission by Miss Nightingale, affecting the sanitary condition of the army and hospitals.

Anomalous Tumors.

By Jas. E. Garretson, M.D.,
Of Philadelphia.

Diseases of the Mouth—*Continued.*

About a year ago, a Mrs. Boyd, an old lady, sixty-nine years of age, residing on George street, West Philadelphia,—I give the name and address, that the case may thus attract the attention of numerous practitioners throughout the city who, at one time or another, during the last fifteen years, have been consulted concerning it, and to whom its finished history will, without doubt, prove very interesting, if not profitable,—applied to me, being kindly directed by some unknown professional friend, concerning a tumor of the mouth, from an inflamed condition of which she was at the time enduring much suffering.

Ocular inspection revealed the following condition: A tumor, very scirrhus-like, hard, lobulated, and angry looking, occupied all that portion of the floor of the mouth, to the right of the mesial line; general inflammation of the whole oral cavity, to such extent as to make mastication too painful to be practiced, and to render deglutition very difficult. All the teeth in the neighborhood loose, and occupying irregular positions, the result, evidently, of a hyperplastic condition of the alveolo-dental membranes. The superficial cervical glands, especially those of the sub-maxillary region, sympathizing to a considerable extent; while the sub-maxillary gland, itself, was so enlarged as to render it sufficiently prominent to be easily mapped out.

The patient seeming unable to talk of anything except her present great pain, which she described as cutting, tearing, burning, et cetera, I dismissed the case for the day, after prescribing for her immediate relief, namely, the ordering of leeches, aperients combined with Dover's powder, astringent local applications, etc.

Two days after, I again visited the case. The general inflammation was resolving very rapidly, while the mental equilibrium of the patient was quite restored.

The disease had been pronounced cancer by several gentlemen, and advice given that no application of any kind should be made to the tumor; that the patient should not even permit it to be handled for any further examination. Under this impression as to its character, the patient had given up all hope of any permanent relief, and was awaiting the end she expected.

The history of the case is as follows:

Eighteen years ago, while engaged in milking an intractable cow, the patient received a kick under the chin, so severe in character as to confine her to bed for over two weeks. This trouble gotten through, the parts soon recovered their natural tone, and seemed as well as ever.

A little over nine months had passed, however, before she was made conscious of occasional slight inflammatory attacks about the region of the sub-lingual gland. These attacks continued to grow in frequency and extent, terminating, to use her own language, "by a something which looked like a whitish worm, coming from somewheres into her mouth." This worm, she said "was always the assurance to her of immediate relief."

The trouble continued to re-occur for over a year, when a tumor began to develop in the parts. The inflammatory attacks now decreased in number, but increased in severity—the patient noticing that after each inflammation the size of the original tumor was augmented.

So the case ran on for a period of several years. It was remarked, however, nearly ten years back, that the tumor had ceased to enlarge from the inflammatory attacks, having at that time gained the size of a pullet's egg, and neither increasing or decreasing up to the time of my examination. Understand me to refer to the tumor in a quiescent state, for each succeeding inflammation swelled all the parts, tumor included, temporarily, more than the one which had preceded it.

The patient, I remarked, was sixty-nine years of age, general health quite good; no constitutional evidence, that I could perceive, of the cancerous cachexia.

Now, while the history of this tumor, in its local features, was in many points the history of cancer, yet, considering its location, considering the affection of the gland duct, which, as indicated by the story of the worm, evidently had association with the tumor; considering the inflammatory attacks to which the parts had been so frequently subjected, and which had resolved harmlessly; considering the length of time the tumor had existed, without passing or apparently tending to pass to the ulcerative stage; considering these features in a diagnostic point of view, I decided, and felt firm in the decision, that the tumor was benign, and not a cancer.

What then was it? The trouble commenced evidently with inspissated ranula. My convictions, founded on the history, was, that it was still a ranula. Not ranula, as derivatively we understand the meaning of that word, but ranula, as pathologically the term has association with the salivary ducts. What the contents of such cyst, if cyst there was, might be, I did not feel prepared to decide.

Acting on the strength of this conclusion, I suggested to the patient my impressions, and requested to be allowed to pass a scalpel through the parts. This, however, met with a most decided negative. The refusal not being, perhaps, so very strange, considering the assurance that Mrs. B. had so often received, that any attempt to operate would be her death warrant.

Failing in several other attempts at persuasion, I became, at length, annoyed at the obstinacy of the patient, and dismissed the case.

About a month after, however, prompted by curiosity, I called again on Mrs. Boyd. There was now not the slightest evidence of inflammation about the parts. The tumor was about the size of a pullet's egg, hard almost as stone, and distinctly divisible into three lobes. The patient assured me that, with the exception of an occasional sharp pain, she felt little or no inconvenience.

At this visit, more than ever satisfied with my diagnosis, I re-urged an operation, but which was as decidedly refused as before.

Saturday morning, May 11, I was again called to see this patient. She was suffering from another of the inflammatory attacks: the most severe she had ever experienced.

Examination discovered the tumor swollen to such an extent as to throw the tongue over into the left cheek. Mastication had been impossible for three or four days, while the ability to swallow was being very rapidly lost; yet with all this inflammation, there seemed no tendency to the formation of abscess.

Placing the old lady in an arm chair, before the window, without asking permission or offering any suggestion, I managed to get the mouth under my control, and, before she was aware of the intention, I passed a bistoury directly through the body of the tumor—the knife grated over some hard substance.

After a time spent in making peace, in which I was greatly assisted by the assurance I was enabled to give of the discovery which would result in her immediate cure, I proceeded to the dissecting out of the foreign body. This, as anticipated, proved to be a salivary calculus, an almost fac simile of which is figured in Gross' System of Surgery, vol. II, page 633. The specimen is now in possession of my friend, Dr. D. H. Agnew, to whom I presented it for the pathological museum of the Philadelphia Hospital.

The pathology of such a lesion is at once appreciated, when we remember that lime is one of the constituents of the saliva, and that the formation of the calculus in this region was merely secondary to the occlusion of the mouth of a gland duct.

A surgical point, however, of considerable interest pertains to the exact location of the stone. Was it in the duct of Wharton? or did it occupy the location of the sub-lingual gland? Prof. Pancoast, who has seen the calculus, is of the opinion that it was in the duct of Wharton. If he is right, (and it is proper that every deference should be paid to his ripe judgment and great experience,) then my cut healing along the whole line by immediate union, a ramula must necessarily re-form unless I make a free passage. If, on the contrary, my original impression should happen to be right, that the calculus had been formed in the sub-lingual gland, and had finally obliterated this gland, then, of course, there is not likely to be any further trouble.

I was led to infer that the body was formed by the sub-lingual gland, because it seemed to me to occupy the exact locale of this gland; and, because, after gaining a size somewhat corresponding to the gland, which size it gained several years ago, it has since remained stationary.

It seemed to me reasonable to suppose, that if the calculus was in the duct of Wharton, it must have been constantly adding to its bulk, and there would be no fair reason why it should not have so augmented.

However, a cotton tent which I placed in the wound came out the day after the operation, and the incision has healed by first intention throughout.

I will see the case the day before this paper goes to press, and report the result; if the ramula tends to re-form, I shall abort its consequences by making a fistula with silver wire.

To-day, my friend Dr. J. J. Woodward, who has made an analysis of the calculus, informed me that he found it composed almost exclusively of the phosphate of lime, only a very small trace of the carbonate being perceptible.

Saw Mrs. Boyd this day, June 1. All induration has so completely disappeared that I think it would be difficult for any one who had not seen the case to say which side of the mouth the tumor had been removed from; not the slightest perceptible tendency to ranula is visible.

This case will, I think, serve as a fair illustration of obscure ranula. A few words in relation to the general features and treatment of ordinary ranula, and we may leave this class of tumors for a consideration of others belonging to the same region, and quite as important to be studied.

Ranula, pathologically considered, has a wider signification than "a cyst under the tongue, resembling a frog's belly." The practitioner, without experience, who goes to meet his first case with the idea of this book description in his mind, will more than likely find

himself entirely lost with what, perhaps, may be truly a very simple case.

Thus, for example, the case related by Prof. Gross, page 634, of his surgery, where a ranula was of such a character as to be removed by enucleation, being a solid, gristly mass, the size of a hen's egg. Such a ranula certainly could not have had a very striking resemblance to a frog's belly.

Again, ranula is not necessarily associated with occlusion of the gland ducts. A single secreting cell may form ranula pertaining exclusively to itself, just as a sabaceous tumor pertains to a single sabaceous gland; and I can as readily imagine such a ranula displacing the substance of the gland proper, as I can understand a similar displacement through an advancing scirrhus of a mammary or any other gland.

Ranula has, as its most common cause, occlusion of the mouths of the salivary ducts. I think I know of the existence of so anomalous a ranula as one formed in the socia parotidis. The tumor is quite small, and situated about the middle of the cheek immediately above the line of the duct of Steno. If I should cut down on this tumor, I would not be at all surprised to find it containing a calculus; it had its origin in injury done to the parts by the extraction of a tooth.

Now, the mouths of ducts are most commonly closed, as the result of local inflammatory action; somewhat about as a stricture of the urethra results from inflammation of this canal.

The origin of ranula may, therefore, not unfrequently be found in periodontitis, or other local affections of the teeth; the presence of salivary calculi, so common to the neighborhood of the inferior central incisor, might easily be inferred as a cause, considering the subacute inflammatory action it is so certain to provoke.

The treatment of a ranula, to be effective, must meet the indications of each particular case. If we have a simple "frog's belly" ranula, the indication is, not merely to puncture the cyst and evacuate its contents, for this puncture would immediately re-unite, and in a few days the ranula would be as large as ever, but a portion of the sac must be taken away, and the cure is to be restricted to a process of granulation.

If we should have a case to treat, in which, from effusions of lymph, the cyst has become very much thickened, we are to evacuate the contents, and inject the cyst with the tinct. of iodine; or, we may stuff it with lint, or treat it in any manner which shall fulfill the indication, which is to obliterate the cyst.

A solid ranula is to be dissected out. If the sub-lingual gland itself should become a solid body, there would be no good reason why it should not be removed. All such operations will be found not difficult to do; the ranine artery and gustatory nerve are the most important anatomical features of the parts, and it would have to be an awkwardly-handled knife that could possibly cut either of these.

If, in any case, for the cure of ranula, a false passage seems indicated, I do not think there is any better or easier mode of making such a fistula, than by simply passing a thread of silver or lead wire through the distended duct, and, securing its ends, allow it to remain until cast off by nature.

(*To be continued.*)

Microscopia of Herpes.

BY GERARD ARINK, M.D.,

Of Rochester, N.Y.

In connection with this subject the observations of Baerensprung in the Annalen des Charités, Krankenhausen Zu Berlin, (Jahrg. viii. 1st Stuk.,) are very important to the medical man. According to his experiments, herpes circinnatus, lichen circumscriptus, impetigo figurata, pityriasis rubra, and porrigo lentulata, belong to the same type.

The herpes, (or salt rheum as popularly known,) develops first on the epidemics of the skin, then penetrates into the deeper stratum of the skin, the rete Malpighii, and so into the hair-sac, entering into and around the substance of the hair, as moss around a tree, destroying the hair, and more or less inflaming the skin, according to the inflammatoriness of the subject affected. This disease appears now like papulæ, then like pustulæ, or vesiculæ, then again like squamæ.

The sporæ, which is the germ for transplantation or cultivation, is ready, at any time, either in summer or winter.

The herpes has this peculiarity, that from the point where it first commences, it always, in developing forms a circle or ring—hence, ring-worm. It sometimes occurs that the points of commencement are very approximate,

and in proceeding with the ring formation they flow together, and thus make different figures, (forma gyrata.)

The spreading out, or extension, or creeping character of this disease, is expressed in the Greek by the term "herpes," in the Latin by "serpigo," which two words signify the same thing. The English, German, and Hollandish term "ring-worm," combining two ideas, viz: the creeping or spreading quality of the disease, and its ring-form as well.

The mother-plant, which the herpes proceeds from, is, according to Baerensprung, a kind of mycelium. When the herpes has more or less impenetrated the skin, it assumes three different characters:

1st. Cloasma—which is confined to the epidermis.

2d. Tinea-favus, porrigo lupinosa; or according to Willan—"porrigo-scutulata;" or "tinea tondens," according to Mahon—whereas Grudy calls it "tricho-phyto-alopnecia," which signifies "hair-mould baldness." In this case the sporæ penetrate as deep as the glandulæ, adiposæ, and hair-bulb; they cling to the neck of the hair-bulb, interrupts its growth, causing it to break and rub out. This foreign growth extends more and more till atrophia of the hair is produced, it cannot grow any more, the soil, is, as it were, poisoned, and its natural growth smothered by this parasitic vegetation, and an incurable baldness is the consequence.

3d. Herpes tonsurans. This commences on the epidermis, thence penetrates to the fat glands, hair-bulbs, and spreads its sporæ into the leather substance of the skin.

Malmsten was the first who discovered that herpes was a vegetable parasite. We may often observe upon the face a herpes circinnatus, or "lichen circumscriptus," or gyratus, all of the same type, but made different in their appearance from the locality where they exist. Baerensprung mentions having observed twenty-seven varieties of the same type, which differed in appearance only from certain peculiarities in the individuals upon whom they were found.

In regard to the *form* under which this disease appears, we would mention:

1st. The squamous form, which is a simple round ring, (the "herpes squamosus" of Cazenave—the "dartre furfuracée arrondie" of Alibert)—or the flowing together of different eruptions, by which large irregular spots are made, (the "pityriasis rubra" of Bateman; the "dartre furfuracée" of Alibert; the "herpes furfuraceus" of Sauvages.)

2d. The papulous form (the "lichen herpetiformis" of Davergée,) which consists of simple round rings, ("lichen circumscriptus" of Bateman, or flowing together. ("Lichen gyratus" of Biett.)

3d. Vesiculous form, which is called by Sauvages "herpes milliaris," and by Willan is usually styled "herpes circinnatus."

4th. The pustulous form (herpes pustulosus,) called "crustosus" by Callissen, and "impetigo figurata" by Bateman.

We find, moreover, two kinds made peculiar by the locality they occupy, which ought to be mentioned.

1st. Such as are found in the inguinal region, ("Erythema perineale" of Wilson, the "Pityriasis rubra inguinalis" of Davergée.)

2d. When found in the nails of the fingers, Meisner found the sporae in the nails to have been produced by scratching tinea patients; they become yellow when affected with the Favus-massa, break, and are generally disfigured. It must not be taken for granted, however, that all disfigured nails become so through tinea; inflammation, or chronic eczema, or sporiasis, may affect the bed of the nail and the consequence is disfiguration.

Herpes, in all its different forms, is a local disease; it comes everywhere, at all ages, to the rich and the poor, the healthy and the diseased, without interfering with any organs. It differs from cutaneous exanthema, in that it always commences from one certain spot, which slowly enlarges. That herpes can be transplanted or cultivated from animals to men, and from one man to another, and that herpes on animals are identical with those on the human subject, has been clearly proved and explained by Baerensprung, Prof. Garlach, and others. The experiments of the former are especially interesting. He, on one occasion, took the herpetic scab from a calf and rubbed it on his own arm. On the first day no effect was observable, but in the course of two or three days it began to itch, and, upon examining his arm, he found a herpes circinnatus as large as a quarter of a dollar; after eight days the spot had enlarged to the size of half a dollar, and in three weeks to the size of a dollar. In the middle thereof was a spot of a new eruption which appeared papulous and vesiculous. In four weeks there appeared three new spots, and Baerensprung becoming a little alarmed, thought it advisable to make an end of his experiments by destroying the eruption, which

he did by rubbing it with the following unguentum:

℞. Mercur. præcip: albi, grana duo
Unguenti simplicis, grana quinque,
Misce, fiat unguentum.

Prof. Garlach has made similar experiments with like results.

We find for the practitioner important facts recorded in the *Prager Vierteljarhrschrift*, 1860. Dr. Stein, at Baireuth, was requested to visit the family of a respectable music teacher. The patient was a little girl twelve years of age. She had an eruption on her face in the form of circles, she had them also on her neck, arm, and leg. A daughter, sixteen years old, also had a spot at the corner of her right eye. The mother was affected on her face and arm; a little boy, who slept with his mother, had spots on his face and legs; another son had a spot on his neck; an elder daughter, who had just returned home, was experiencing the same eruption; the father only was free. The eruption upon these different subjects, consisted of spots of the size of a quarter of a dollar, elevated above the skin, red, with tinea squamosæ, composed of laminæ of yellow brownish crusts, circumscribed with a circle of herpes-vesiculæ. In the first case the disease had been observed about six weeks. It became then a question of interest, "Whence did the first child receive the eruption?"

The violent scratching of the cat gave evidence that there must exist some cause for it; consequently the doctor examined the animal, and found places where the hair had fallen out, and there, fully developed, was the herpes circinnatus, with its sporæ ready for cultivation. This cat was the pet of the little girl; was accustomed to be played with by her, and slept in the bed with her; ergo, the explanation of the whole thing—the cat was the cause of the family difficulty. Finally, as the result of all these observations, we conclude, beyond a doubt—

1st. That herpes in animals is identical with the herpes in the human subject.

2d. That herpetic lichens can be only understood through microscopic examination.

3d. That the different external appearance of the herpes does not arise from the existence of different kinds of lichen, but from the physiologic construction of the skin upon which it is found.

4th. That it is a local disease, the condition of the blood having nothing to do with it, as old practitioners used to teach.

5th. That the herpes in general, and the treatment especially, stands upon an equality with other parasitic eruptions, of which we have a type in the scabies.

Showing by these actioma that the disease, known as herpes, is of simple origin and character, so must the treatment of it correspond in simplicity. In place of the internal and external use of arsenic, quicksilver preparations, lead, copper, etc., the simple application of adhesive plaster is found to be all-efficient. The theory is this:

1st. According to natural laws, parasitic or lichenous life, as is the case in the higher ranks of the animal and vegetable kingdoms, cannot exist, except in the atmosphere in which it was created, consequently we use the adhesive plaster to shut off the atmosphere.

2d. Such application prevents any further increase or transplantation of the herpes.

3d. The adhesive plaster, properly applied, produces more or less pressure, which has a very destructive effect on the sporæ. Small strips of good sticking-plaster are laid one over another, in the manner of an expulsive bandage.

It is astonishing to note the progress which surgery has made within the past few years, as shown in the hospitals, as well as in private practice. Boxes, with a dozen or two of difierent kinds of unguents, lapis chirurgorum, etc., have nearly all been superseded by the more effective use of common sticking-plaster. We have seen the most inveterate fungous ulcers cured, simply by the application of a close-shutting, expulsive bandage of adhesive plaster; or, in other words, by effectually shutting off the atmosphere from the diseased spot.

Dandruff, so commonly found upon the head or "epidermis bran," as it is called, (schuppengrind,) is often very annoying by its presence in the hair, and the physician may sometimes be puzzled, if applied to, to prescribe an effective remedy, for the reason that it seems so simple a matter. For this almost universal annoyance, the following hair-wash is very efficacious:

℞.—Boracis, drachmas duas,
Aquæ rosarum, uncias octo. Solve.
S.—Wash the hair occasionally.

—o—

It is reported that there is much sickness among the Southern troops in the vicinity of Pensacola, and that there is great need of good nurses. Surely this want can readily be supplied from the plantations. Colored servants make capital nurses.

EDITORIAL DEPARTMENT.

PERISCOPE.

TREATMENT OF HOUSEMAID'S KNEE BY SEATON.

At the present time three girls, of the respective ages of fifteen, sixteen, and seventeen years, are to be seen in one ward of St. Bartholomew's Hospital, under the care of Mr. Skey, who are the subjects of enlarged bursæ over the knee, brought on by kneeling on a hard floor or stone steps, whilst following their occupation as servants. The occurrence so early in life is unusual; but there is no reason why females of all ages should not be subject to this affection, if exposed to the causes which give rise to it. We recollect an instance, in University College Hospital, of a young man, under Mr. Erichsen's care, with an enlarged bursa over one of his knees, the result of his peculiar calling, which was that of a tacker down of carpets. When Mr. Skey's patients were admitted, all the acute signs of inflammation had subsided; but the enlarged bursæ remained filled with fluid. Various plans of treatment are recommended for this affection, including, amongst others, repeated evacuation by punctures, until the bursal sac secretes no further fluid, or is obliterated by inflammation. Simple as this process is, however, fatal consequences have ensued by the severity of the constitutional symptoms. Mr. Skey's practice is to pass through the tumor a thickish thread, which is allowed to remain in. This sets up inflammatory action, known by a little redness around the entrance of the thread, and the swelling either subsides altogether, or, what is more common, an abscess forms, which is opened, and the cavity becomes obliterated. In these three patients this treatment was followed out, and suppuration took place in all, with the result of cure. In one—the girl of sixteen—erysipelas was contracted in the knee, and in the foot of the same leg, from a patient in the neighboring bed. An abscess formed in the foot, which was opened, and the erysipelas is disappearing under the use of quinine internally.

Mr. Skey applies the seaton to all forms of housemaid's knee. He thinks it is perhaps better suited, however, to the hard and indurated bursæ.

There are some examples of this disease, wherein the walls of the cyst have become so thick and solid that no plan of treatment short of actual removal will prove of any avail. We have seen Mr. Fergusson, at King's College Hospital, dissect them out, under such circumstances, with good results. And we can call to mind an instance that came under our notice some months back, at University College Hospital, under Mr. Erichsen's care, of a girl who had a bursal tumor of this character wholly removed.

In October last, Mr. Quain had a girl, aged nineteen years, under his care in the same hospital, in whose left knee was a fluctuating bursal tumor, of the size of a small orange. This was treated by a thread seaton, with the result of causing evacuation of its contents, mild suppurative inflammation, and obliteration. In that instance the tumor had been present ten months, and arose from kneeling while scrubbing.—*Lancet.*

MEDICINAL TREATMENT OF GOUT.

The combination which M. Trousseau conceives to be the most efficient is that of sulphate of quinine, colchicum, and digitalis, proposed by M. Becquerel in the following proportions:—Quiniæ sulphatis 22 grains, ext. semin. colchici 8 grains, ext. digitalis 4 grains. M. Divide in pilulas decem. Two or three of these pills should be exhibited in the course of the twenty-four hours for two, three, or four successive days. M. Trousseau has prescribed these pills himself, and witnessed their exhibition by others, with sometimes wonderful success. He has found the excruciating pain of a genuine acute paroxysm yield in seven or eight hours, and the attack itself subside in two or three days. These are the pills the professor prescribes in the incipient stage of anomalous gout.—*Dublin Medical Press.*

EXPLOSION OF TEETH WITH AUDIBLE REPORT.

In a recent number of the *Dental Cosmos*, W. H. Atkinson reports three cases of this remarkable phenomenon. Without requesting of the reader a stretch of credulity, or offering any theory to account for it, we assert the respectability of the source of the report.

Case 1.—Rev. D. A——, Springfield, Mercer county, Pennsylvania, August 31st and September 1st, 1857. At nine o'clock, A. M. of August 31st, the right superior canine or first biscuspid commenced aching, increasing in intensity to such a degree as to set him wild. During his agonies he ran about here and there, in the vain endeavor to obtain some respite; at one time boring his head on the ground like an enraged animal, at another poking it under the corner of the fence, and again going to the spring and plunging his head to the bottom in cold water; which so alarmed his family that they led him to the cabin and did all in their power to compose him. But all proved unavailing, till, at nine o'clock the next morning, as he was walking the floor in wild delirium, all at once a sharp crack, like a pistol shot, bursting his tooth to fragments, gave him instant relief. At this moment he turned to his wife and said, "My pain is all gone!" He went to bed, and slept soundly all that day and most of the succeeding night; after which he was rational and well. He is living at this present time, and has vivid recollection of the distressing incident.

Case 2.—Mrs. Letitia D——, Vernon, Mercer county, Pennsylvania, 1830. This case cannot be so clearly or fully traced as case first, but was much like it, terminating by bursting with report, giving immediate relief. The tooth subsequently crumbled to pieces; it was a superior molar.

Case 3.—Mrs. Anna P. A——, Hemphill, Mercer county, Pennsylvania, 1855. This had a simple antero-posterior split, caused by the intense pain and pressure of the inflamed pulp. A sudden, sharp report, and instant relief, as in the other cases, occurred in the left superior canine. She is living and healthy, the mother of a family of fine girls.

THIRTY-TWO YEARS UTERO-GESTATION.

Dr. W. H. White reports, in the *Ohio Medical Journal*, the case of a colored female, aged *sixty-two* years, who, after a great deal of severe suffering, passed per vaginam the remains of a fœtus. She was taken with vomiting and excruciating pains, as if in the last stage of labor, which continued until after the fragments of a fœtus were expelled. Illness continued for some months, and she finally died from exhaustion and suffering. An autopsy showed that the womb still contained a considerable portion of the bony remains.

The woman had been married twice, and had had one child by her first husband. At the age of thirty, whilst living with her first husband, in an attempt to walk in the dark, she accidentally fell, striking the lower part of her abdomen transversely on a stick of timber. In consequence of this fall a severe inflammation supervened in that part of the abdomen. It was soon evident that she was pregnant, and she continued in ill-health until what ought to have been the regular period of utero-gestation. At this time she had some regular labor pains, and lactation was established, but no fœtus appeared.

Illness continued for two years, during which time offensive and bloody discharges came from the uterus. Health was then restored, and the secretive functions of the uterus returned, and she continued in health until the age of about sixty-two, when the extrusion of the remnants of the fœtus occurred.

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Miss D. L. Dix, who is so well known throughout the Union for her philanthropic efforts on behalf of the insane, and of the occupants of our county poor-houses, is in Washington, where she is devoting her energies to the welfare of the sick and wounded of the army. Much has been done, in great part through her efforts, toward organizing an efficient corps of nurses, and providing the necessary comforts for the sick and wounded.

THE MEDICAL AND SURGICAL REPORTER.

PHILADELPHIA, SATURDAY, JUNE 8, 1861.

PREVENTION BETTER THAN CURE.

Emergencies which have suddenly called into existence within the bounds of the United States, active and reserve forces, numbering, probably more than half a million men, make it incumbent on us to present from time to time such facts and observations on the subjects of military hygiene, surgery, and medicine, as will call to them the attention of the profession.

It devolves upon our profession, while we have the opportunity, to enlighten those who are entering upon a new and untried course of life, on the means, first of all, of preserving their health. We should not fail to inform them, and to make them fully comprehend, that sickness and not casualty—fever, dysentery, diarrhœa, etc., and not the bullet or the bayonet—are the foes that they have the greatest reason to fear. Already, though the campaign has but just commenced, we hear of measles at Fortress Monroe, of small-pox and diarrhœa at Harper's Ferry, intermittent fever at Cairo, and fever at Pensacola.

Taking these diseases as a type of what the volunteer soldiers must contend with for the present, we propose a few brief remarks on the prevention of disease. Much the larger part of our military have not yet entered the field actively. They are encamped in healthy, pleasant locations in the different States, where they are being drilled in military exercises, and inured to the hardships of a camp life, and where they should be well instructed by their surgeons in matters connected with the preservation of their health. There should be no delay in protecting the army from all danger of that loathsome and fatal disease, small-pox, by a general vaccination and re-vaccination. *This should be required by Government.*

In respect to other forms of sickness, soldiers should be taught that by morality, (including strict temperance,) care in regard to diet, drink, and exposure, and prompt consultation with the surgeon on the appearance of even slight indisposition, many days of sickness and suffering, and many valuable lives will be saved.

Dr. Livingstone, the enthusiastic and intrepid traveller, explored the wilds of Central Southern Africa "with the bible in one hand, and a bottle of quinine in the other." The principles taught by the one, and the protective power of the other against many of the diseases to which they will be liable, cannot be too strongly urged upon the attention of the thousands of men who have been called from peaceable pursuits with scarcely any warning, and are now exposed to the vicissitudes of camp life and field service.

Probably never before in the history of the world, was so large an army sent into the field whose moral standing is so high as that from the Northern States of the Union. Immorality and vice have been considered as almost necessary accompaniments of armies, and undoubtedly there is a great deal to be found among these soldiers. And yet it is a fact that one of the first officers provided for a large proportion of the regiments that have taken the field has been the Chaplain, while almost every man in many of the regiments is provided with a copy of the Holy Scriptures. So far as these influences will tend to prevent excesses, (and that will most assuredly be their natural tendency,) they will do a great deal toward preventing sickness and mortality in the camps.

Intemperance in eating and drinking, the use of intoxicating liquors, exposure to the sun and to the damp night air, especially after fatiguing marches or other labor, the neglect of wearing sufficient and suitable clothing, the immoderate and incautious use of cold water, both in drinking and bathing, when the body is overheated, may be mentioned as among the most potent causes of sickness and mortality among troops. A strict morality, which will beget a conscientious care of the health, will greatly diminish the amount of mortality among our soldiers whether in camp or field.

A late distinguished missionary to one of our Indian tribes, in a parting letter to them, says: "I was the first physician settled among you. *I first introduced among you that medicine that has saved so many lives*—QUININE." And referring to a time when thousands of these Indians were migrating from one portion of the country to another, and were living in camps, he says: "I have now about eighteen hundred cases on record, for which I prescribed in less than three months, *and but fifteen of them proved fatal.*" We know that with this missionary physician, as with Dr. Livingstone in Africa, *the* remedy he relied chiefly upon while his detachment were living an exposed camp life, was *quinine*, and we firmly believe that the same remedy, judiciously used in connection with proper hygienic measures, which will suggest themselves to any properly qualified regimental surgeon, will prevent much sickness in our armies.

We sincerely hope that surgeons will bear in mind that it is often much easier to prevent sickness than to cure it, after it is once established, and as the health of the soldiers in their regiments is placed in their keeping officially, they need labor under no embarrassment in adopting such measures, and giving such advice, whether to the command or in individual cases, as will tend to the preservation of health. In all localities, an enforcement through the officers, of the rules of morality, and care to prevent unnecessary exposure, will prevent much sickness, while in others, this may be prevented by a judicious employment of the remedy found so potent for good in the hands of Dr. Livingstone and the missionary referred to above.

SIR BENJAMIN BRODIE ON THE "READY METHOD."

There seems to be such general confidence in the method proposed by the late Dr. Marshall Hall for the restoration of animation in asphyxia, from drowning or other cause, that the profession in this country will be surprised to learn that its efficacy is denied by such eminent authority as Sir Benjamin Brodie. This distinguished surgeon says that he has never entertained any favorable opinion of what is familiarly known as the "ready method." He thinks that the repeated compression of the chest, for the purpose of expelling all the air from the lungs, would have an injurious effect on the action of the heart. Then, he says, that the mechanical disturbance occasioned by the continual rolling and tumbling of the body cannot be otherwise than mischievous, where the chances of life and death are equally

balanced, and must, in all cases, interfere with the natural process of recovery.

Brodie remarks, that in the treatment of drowned persons, as in the treatment of disease, the first rule of the medical art is to do nothing that may interfere with the natural process of recovery. When a drowned person is first taken out of the water, if the heart has not already ceased acting, there is generally a spontaneous effort to respire; that effort may not be repeated, perhaps, more than once or twice in a minute, or even not so often in the first instance; but if the attempt to respire has once begun, it will, in the majority of instances, continue, the intervals becoming gradually shorter; and the learned authority alluded to says, that he cannot doubt that such rough usage as that which Dr. Hall recommends would interfere with it; although it is not very improbable that every now and then, some one may recover in spite of it.

Brodie says that his conclusions on the subject have been the result of a great number of experiments on animals, and of much thought on the subject.

There has been a vast amount of testimony offered in favor of Dr. Marshall Hall's practical rules, but, as in many other cases of medical practice, a *propter hoc* may have often been mistaken for a mere *post hoc*—a sequence for a consequence. The authority of a great name as its originator, may have influenced many in signing their names to the memorial of three hundred medical men in its favor, and, as Brodie remarks, the question as to the mode of death from drowning is altogether a physiological one, to which the attention of very few has been directed, with the exception of those who are actually engaged in teaching physiology.

We believe that in this country Dr. Marshall Hall's views have been adopted generally, and been extensively brought to bear in cases of drowning, and in the more frequent asphyxia neonatorum. This denial of the efficacy of the "method" from such an eminent source, will re-awaken experimental attention to the subject, and will result in its proper appreciation. We commend it to the researches of our physiologists, and to the careful observation of practitioners whose humane efforts are occasionally directed to unfortunate cases of asphyxia.

Correspondence.

FOREIGN CORRESPONDENCE.

HOSPITALS IN ROME.

Rome, April 29, 1861.

MESSRS. EDITORS:—On the twenty-second of this month, I visited the Hospital di Santo Spirito, which is the largest in Rome. It is intended exclusively for men, and chiefly for medical cases. This separation of the sexes into different institutions is, to me, a new thing. I had never before seen a *civil* hospital intended for *general* diseases, and yet for men only. There is a smaller institution—the Hospital di San Givacchino, which is for women only, and there is yet another one of importance on the Corso, intended for surgical cases.

The Santo Spirito contained, at the time of my visit, 590 patients. The largest number ever in it was 1,002. The wards are very large. In one of them there were 240 beds, two rows on each side, the head of one bed touching the foot of the one behind it. I was told that, when the thousand patients were there, there were *three* rows on each side. As a partial compensation for this, however, the ceilings are very high indeed; and what you would suppose, from the outside, to be the windows of an upper story, are in reality, as you discover on entering, only a second row of windows in the vast ward into which you are abruptly ushered. I say abruptly, because there is no entry, no ante-chamber, no porter's lodge, with singing birds, no beautiful garden to cheer your eye; but three steps from the street, place you in the ward. On the right and on the left of the door, are little glass counting-houses, (I can find no better name for them,) in which sit constantly ecclesiastics, ready to administer the last rites of the church to those whose souls are about to leave this world.

There are, on the average, eight, daily, who thus leave Rome forever. When they are fairly off, their bodies (their former habitation) are taken to the dead-house, where they all lie in a row, young and old, on the same long, low table, each having a string tied to the arm, by means of which, if the spirit should return, or should not yet be off, a bell may be rung, and thus probably frighten some poor nun out of her wits. There are, at least, forty nuns employed as nurses in the Hospital of Santo Spirito; but although the bodies of the supposed dead must lie for twenty-four hours on that table, not one of the nuns has ever yet been alarmed by the ringing of that bell.

The patients in the hospital certainly ought to be well taken care of, for, besides the forty nuns, there are forty or sixty resident medical students, six or eight resident physicians, and some attending physicians. The resident stu-

dents have each a bed-room, and take their meals in the hospital; the resident physicians have each his own little parlor as well as bed-room, and, in addition, a little—a very little—salary. They are, however, permitted to practice in the town, and, if they choose to dine elsewhere, an allowance is made to them on that account. They are bound to remain in the hospital six years; after that they are eligible to the concours for the post of attending physician. This concours, or examination, consists of the examination of six patients, in addition to which a thesis, written in Latin, must be presented. The Pope, however, has the power of appointment, if he chooses, without an examination of thesis, and even without the previously-residing in the hospital for six years. This power is occasionally exercised, but not very often. These attending physicians have a salary of one dollar a day, and for lecturing a little more.

One ward is for soldiers, among whom the prevailing diseases are venereal. Indeed, I was informed that diseases of that nature had increased very much in Rome since the concentration here of such large bodies of troops.

In the hospital, everybody, native or foreigner, is received. One has only to present himself at a desk just within the door, and a bed is at once given to him. Of course, he will be discharged by the physician if suspicion should arise of his coming only for his board, and not for medical treatment; but the peculiarity consists in the admission without medical examination. The case is not, however, wholly without an analogical case at home, for I have known sailors affected by a longing for repose and a peaceful home, to be admitted into a great Philadelphia institution, and stay there more than a day before sent away to find a more expensive lodging-place.

Along side of the main entrance is a hole in the wall, where foundlings are received in a cradle that can be turned by the hand from the outside, thereby ringing a bell. The little ones are taken care of in a neighboring building. A great many of the neighboring buildings are either connected with or belong to the hospital. There is a large palace belonging to the Monsignore Directore and Commendatore, who is necessarily an ecclesiastic, as he has authority over the nuns of the establishment. A new building, which is now going up close by, is intended for the clinics of Rome. There are to be twenty-four beds for surgical patients, and twenty-four for medical cases—the patients to be chosen by the clinical professors from any hospital in the city.

The building in which the nuns live adjoins the hospital. The houses on the opposite side of the way all belong to it, which is always indicated by a double cross (‡) over the doorway.

The total cost in the Hospital of Santo Spirito, for the support of a patient, averages two dollars a week, which is certainly not much; but, when the price of labor here, in the Old World, is taken into consideration, and also the circumstances that the nurses are not paid, I do not know that it is remarkable. All the medicines are prepared in the house.

Two more points remain to be noticed, namely: the museum and the dissecting room; the former is respectable, but nothing remarkable; the latter is the finest room in the establishment. An immense window at one end affords a view down the dirty Tiber, with its ugly dilapidated banks; and the student of anatomy can go there, when weary of using the knife, and enjoy a purer air than any of the patients are permitted to inhale, for there is no garden, and not even an open space or courtyard in which *they* can enjoy themselves while convalescent.

The tables in the dissecting room are of marble, supported by thick columns, which look as if they might have belonged, at one time, to the palace of some old Roman emperor, who little thought that he was serving the cause of science when he ordered those delicate columns to be hewn. A tin pipe, connected with a gutter running around the table, conducts the fluid-waste at once to the common sewer underneath.

I have now only to mention, last, an observation, which was the first I made, and that is an inscription at the door, announcing that the hospital, in consequence of an order of one of the recent popes, is not an asylum for thieves. I suppose that, even in this holy city, it was found not to answer that a free license should be given for any one patient to rob another and be out of the reach of the law.

Before leaving Rome, I hope to visit the University and the Botanical Garden; and, should I do so, shall send you an account of them.

Very truly yours,

M. D. Abroad.

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The British Anti-Tobacco Society.—At a recent meeting of this organization the following resolutions were adopted:

1. That the more the influence of the employment of tobacco is investigated, the more conclusive is the evidence that it is detrimental to the physical, intellectual, and moral condition of those who are subjected to it; and so manifestly are its injurious consequences on the increase, as seriously to threaten the deterioration of coming generations.

2. That the evils proceeding from tobacco being such as are recognized in the resolution which has been passed, this meeting would urge, with all the earnestness of religious and patriotic sincerity, that the means which have been hitherto employed with such encouraging success, may be sustained by increased liberality and abundant personal co-operation by the British public, whose interests are so deeply concerned in this movement.

NEWS AND MISCELLANY.

Meeting of the Board of Surgeons at Harrisburg.—The Board of Surgeons, selected to examine candidates for appointment in the Reserve Volunteer Corps of Pennsylvania, convened in the House of Representatives Thursday last, May the 30th. The members comprising the Board are Dr. Henry H. Smith, Surgeon-General; Dr. Jas. King, of Pittsburg; Dr. D. H. Agnew, of Philadelphia; and Dr. Geo. Dock, of Harrisburg.

The mode of examination was one well calculated to determine the suitableness of the candidate for a position of this character. The questions were all printed and laid before the candidates, and their answers required in writing. After having finished, they were requested each to enclose in an envelope his paper, and endorse on the back his name, residence, age, time and place of graduation, with any hospital or other medical advantages which he may have enjoyed. The second day each candidate was examined as to his ability in the application of bandages, splints, and other surgical dressings, several "life-size figures" having been placed in the hall for that purpose.

In the course of the examination, a little incident occurred calculated to give a few moments pleasant diversion to the monotony of the hour. It was the entrance of Gov. Curtin, accompanied by his Aid, Col. Wright. A few taps from the hammer of the Surgeon-General apprised the candidates of his presence, when they arose in a body to receive his Excellency. Advancing to the Speaker's chair, he was addressed by Prof. Smith as follows:

"May it please your Excellency, in accordance with your orders I have convened, in this hall, a Board of Surgeons for the purpose of examining such candidates for the posts of surgeons and assistant-surgeons to the troops of Pennsylvania as you have permitted to present themselves. Permit me, then, on this occasion, to introduce to you, as members of the board, Dr. King, of Pittsburg, Dr. Agnew, of Philadelphia, and Dr. Dock, of Harrisburg. I also present to you the candidates—our fellow-citizens from all parts of the State—whose presence here is indicative of their interest in the welfare of our noble troops, as well as of their willingness to aid in the support of our institutions, and the maintenance of the beloved flag of our country."

The Governor, at the conclusion of these remarks of the Surgeon-General, spoke as follows:

"Surgeon-General Smith, members of the Medical Board, and Gentlemen: I meet you at this time under circumstances of mingled pleasure and regret. Regret that you should have been called from your homes to prepare yourselves for duties which are not in harmony with the spirit of the people of Pennsylvania, and one in direct antagonism with their peaceful pursuits. Our great founder established the government of this State in 'deeds of peace,' and the people of Pennsylvania have hitherto engaged in those arts and occupations which lead to moral and physical development. And yet, when these are threatened, when the stability of our government—based upon principles of beneficence and fraternity—is in danger, it affords me pleasure to see so many loyal gentlemen willing so sacrifice the comforts of home and its social ties, and offer themselves to the service of their country. I hope, gentlemen, the struggle may not continue long, and yet, judging from the past and the present, and looking with philosophic calmness into the threatening future, it is to be feared it will be prolonged and bloody, and that a long period will elapse before the concord and fraternity shall be restored, which, for more than seventy years, have beeu the distinguishing characteristics of the people of this great nation. We have answered the call to arms with a promptness which is in harmony with the history of our State, and, when the record is made up, no blot will rest on the courage and fidelity of Pennsylvania.

"I am not here, gentlemen, to speak of myself; the partiality of my fellow-citizens has placed me in a high official position in a most trying period. I have labored zealously in the discharge of my duty, and I intend to fulfill to the utmost of my powers, until the great end is accomplished, every requirement that may devolve upon me, and shall confidently await the deliberate judgment of a generous and just people.

"It is not strange I should be made the subject of comment, and I do not complain that every act of mine should be subjected to the strictest scrutiny: this is incident to my public position; but I have reason to expect a candid and fair judgment in face of the unmerited detraction and abuse heaped upon me. Pardon me, gentlemen, for thus alluding to myself; it was not premeditated when I was invited to enjoy the honor of standing in this intellectual assemblage, but is the involuntary expression of feelings which recent circumstances, probably known to you all, had called forth. Relying upon my conscious rectitude, and awaiting the power of truth for my vindication, I will no longer interrupt your proceedings, but conclude by again thanking you for the kind demonstrations of this occasion."

Philadelphia Hospital.—Drs. Duer and Sherrard, senior resident physicians, having resigned their positions, Dr. G. M. McGill, one of the junior residents, and Dr. H. W. Bellows, have been appointed to fill the vacancies.

Dr. J. K. Lineaweaver, of Lebanon, Pa., has been appointed assistant resident physician in the insane department.

Statistics of Health.—According to the best observations, the rates of both sickness and mortality increase as age increases from the age of fifteen years to the end of life,—at one fixed ratio of increase from year to year up to the age of fifty-five years (nearly), and thenceforward at another and much higher fixed ratio until the close of life. The necessary consequence of this parity of increase between mortality and sickness is, that the quantity (in duration) of sickness to one death, is the same for every age of life. This is found by observation to amount to nearly two years of sickness to one death at every age of adult life, when invalids are excluded. The same proportion holds good if invalids be included, but subjected to the condition that one year of invalid life-time be reckoned as equivalent to one-third of a year of sick-time. If all invalid life-time be treated as sick-time, the total sick-time would be two and four-seventh years to each death. The persons suffering constantly from acute sickness at any year of age will amount to double the number of yearly deaths, and the number of invalids or permanent sufferers from sickness will be equal to the number of annual deaths. In accordance with several observations, it has been here assumed, that invalids or pensioners, through inability to earn wages, are equal to one-half of the number constantly suffering from acute attacks of sickness at any age. In comparing together the results of attacks of sickness at various ages, it has been found by observation, that the proportion of attacks terminating in death increases with the age in the same degree as the rate of mortality increases with the age; it hence arises that the proportion of new attacks of sickness at all ages is constant, and that the duration of attacks of sickness increases with the age according to the same law as that by which the rate of mortality increases. The proportion of the living attacked by sickness in one year at any age has been stated to be one in three, nearly. The average duration of an attack of sickness in the general population of the working age (say from twenty to sixty-five years) has been estimated by Dr. Farr at thirty-six days, or one-tenth of a year. Since each person has on an average an attack of sickness once in every three years, it will ensue that the average duration of the sickness suffered by each individual of the working population in one year will be twelve days, or one-thirtieth of his life-time.—*Lancet.*

The Connecticut Medical Society.—The Sixty-ninth Annual Convention of the Connecticut Medical Society met at New Haven on the 22d ult., and continued two days. The address of the retiring President, Dr. Ashbel Woodward, was an unusually appropriate production, and a very able paper. When published, it will repay perusal. The Annual Dissertation was read by Dr. J. B. Lewis, of Rockville. The subject was "Hereditary Predisposition," and the paper was well received. Delegations were present from New York State Medical Society, and from the New York Academy of Medicine.

The convention was one of more than usual importance, inasmuch as the whole plan of its organization was changed. The Society is one of the oldest in the country, its charter having been granted by the Legislature in 1792. Through the whole period of its existence it has been conducted under the original rules or by-laws, by which the Delegates, or Fellows, as they are termed, are allowed debenture bills for mileage and per diem. This was all abolished by the late meeting, and the Society re-established on a more voluntary basis. It is to be hoped, and with much reason, that the change will work great improvements.

On the evening of the 22d the Society dined together at the Tontine.

The following officers were elected for the ensuing year:

J. G. Beckwith, M.D., of Litchfield, President; E. K. Hunt, M.D., Vice President; P. M. Hastings, M.D., of Hartford, Secretary; G. O. Sumner, M.D., Treasurer.

The next meeting will be held at Bridgeport on the fourth Wednesday in May, 1862.

The Dental Hospital of London.—At this institution 4,612 patients applied for relief during the past year, and 5,573 operations were performed.

Dr. R. B. Bontecou, of Troy, is at Fortress Monroe, Va., as Surgeon of the Troy regiment, stationed at that place.

Answers to Correspondents.

W. B.—Dr. Hamilton's work on Miltary Surgery is, we believe, just published. The work of Drs. Tripler and Blackman is announced for sale. Dr. Gross' Manual of Military Surgery is the only American work on the subject which we can at present recommend, as it is the only one we have seen. It was noticed in the last number of this journal. McLeod's Notes on the Surgery of the Crimean War can only be had by ordering it imported. Larrey's Surgical Memoirs of Napoleon's Campaigns is out of print. The works of Baudens and Stromeyer have not been translated.

N. M.—Explore the eye with the ophthalmoscope after having dilated the pupil. For this purpose it will be sufficient to use half a grain of the sulphate of atropia to an ounce of water.

Communications Received.

Connecticut—Dr. A. Hobron, Dr. S. Main, Dr. J. B. Lewis, Dr. W. K. Scofield, Dr. G. L. Platt, Dr. J. A. King. *Massachusetts*—Dr. C. E. Buckingham. *New Jersey*—Dr. Stephen Wickes, with encl.; Dr. C. R. Gorman, Dr. S. B. Irwin. *New York*—Dr. C. E. Halsey, Dr. G. Arink, Dr. S. W. Francis, Dr. T. C. Brinsmade, with encl. *Ohio*—Dr. N. B. Tyler, Dr. D. W. Hovey, with encl. *Pennsylvania*—Dr. R. Armstrong, Dr. F. T. Green. *Rhode Island*—Dr. B. F. Arnold. *Vermont*—Dr. L. C. Butler. *Virginia*—Dr. R. D. Bontecou. *Rome, Italy*—M.D., Abroad.

Office Payments.—Dr. Isaac Comly, Pa. By Mr. Hulme, New Jersey: Dr. C. R. Van Doren, and Dr. W. J. Lytle. By Mr. Swain: Drs. J. J. Reese, Vallette, Larrison, and Hewston.